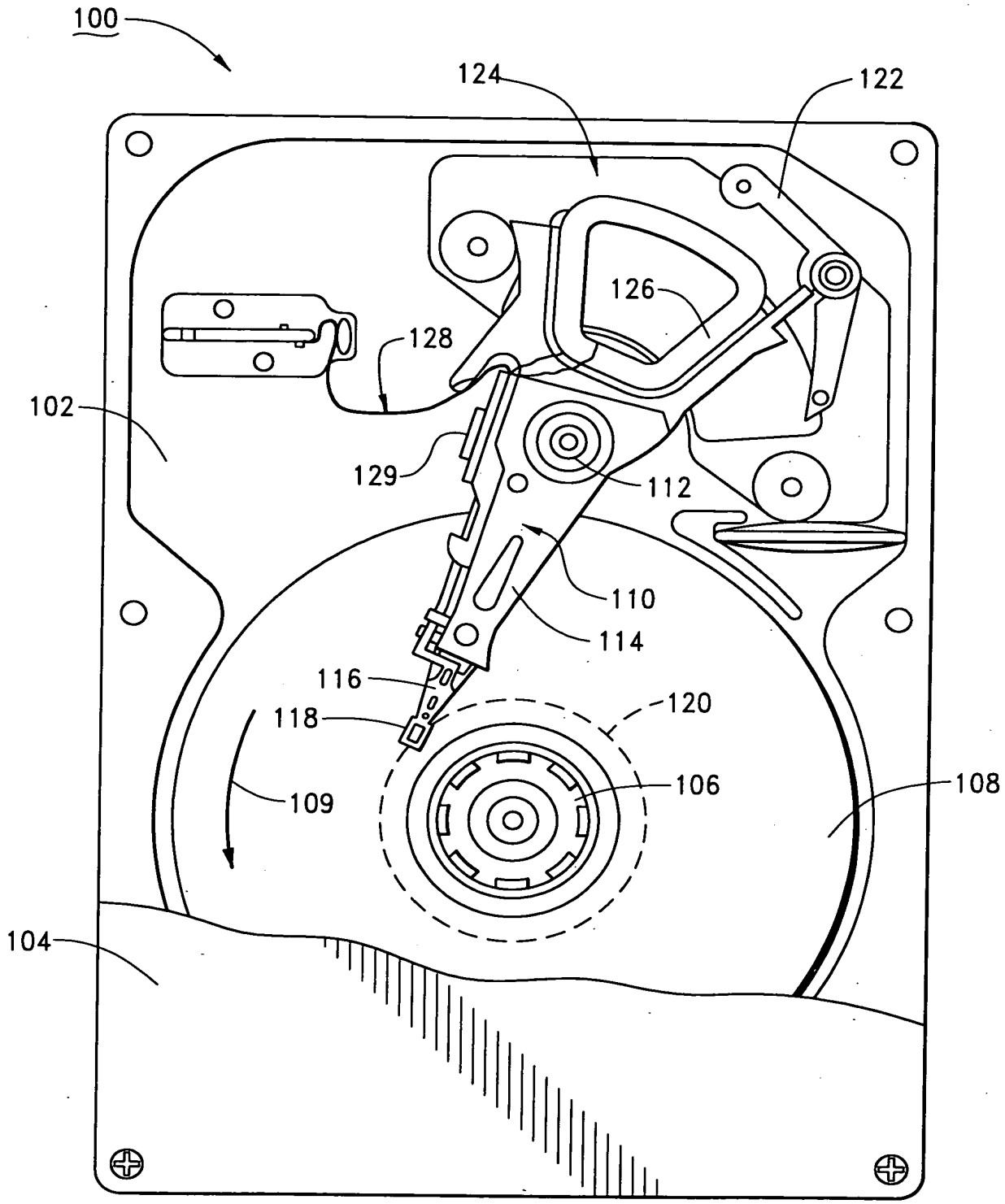
100
124
122
126
128
102
129
112
110
114
116
118
120
106
108
109
104

FIG. 1

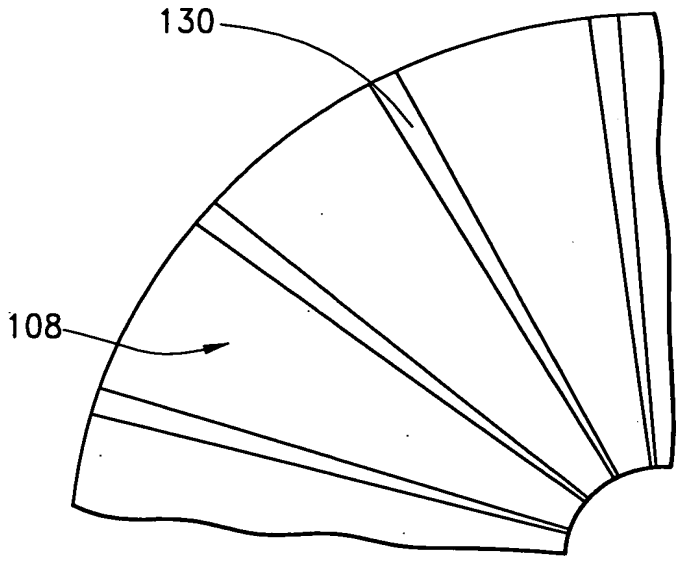

FIG. 2

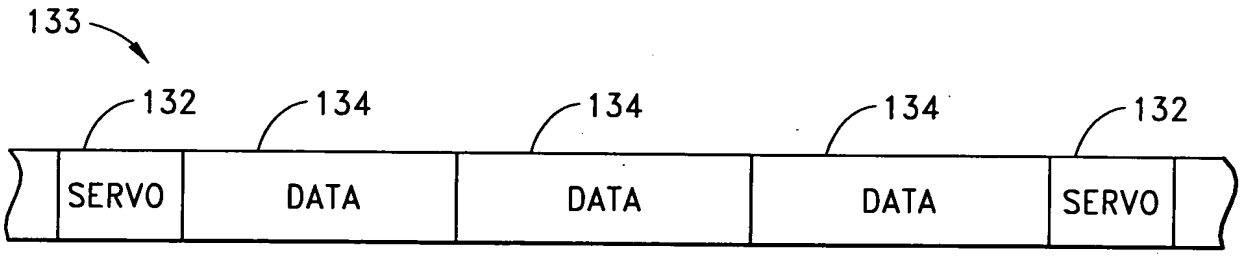

FIG. 3

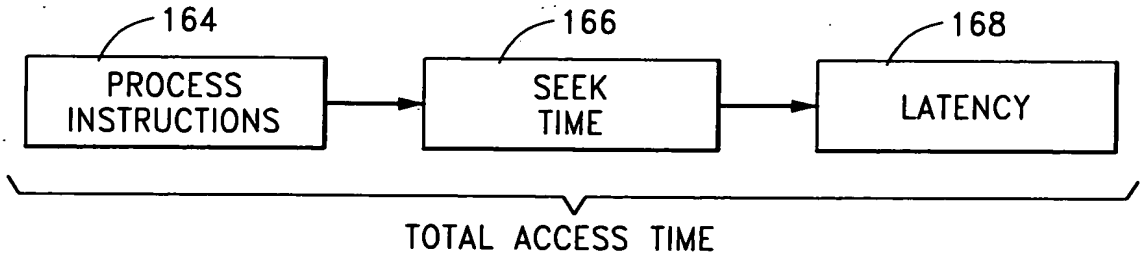

FIG. 5

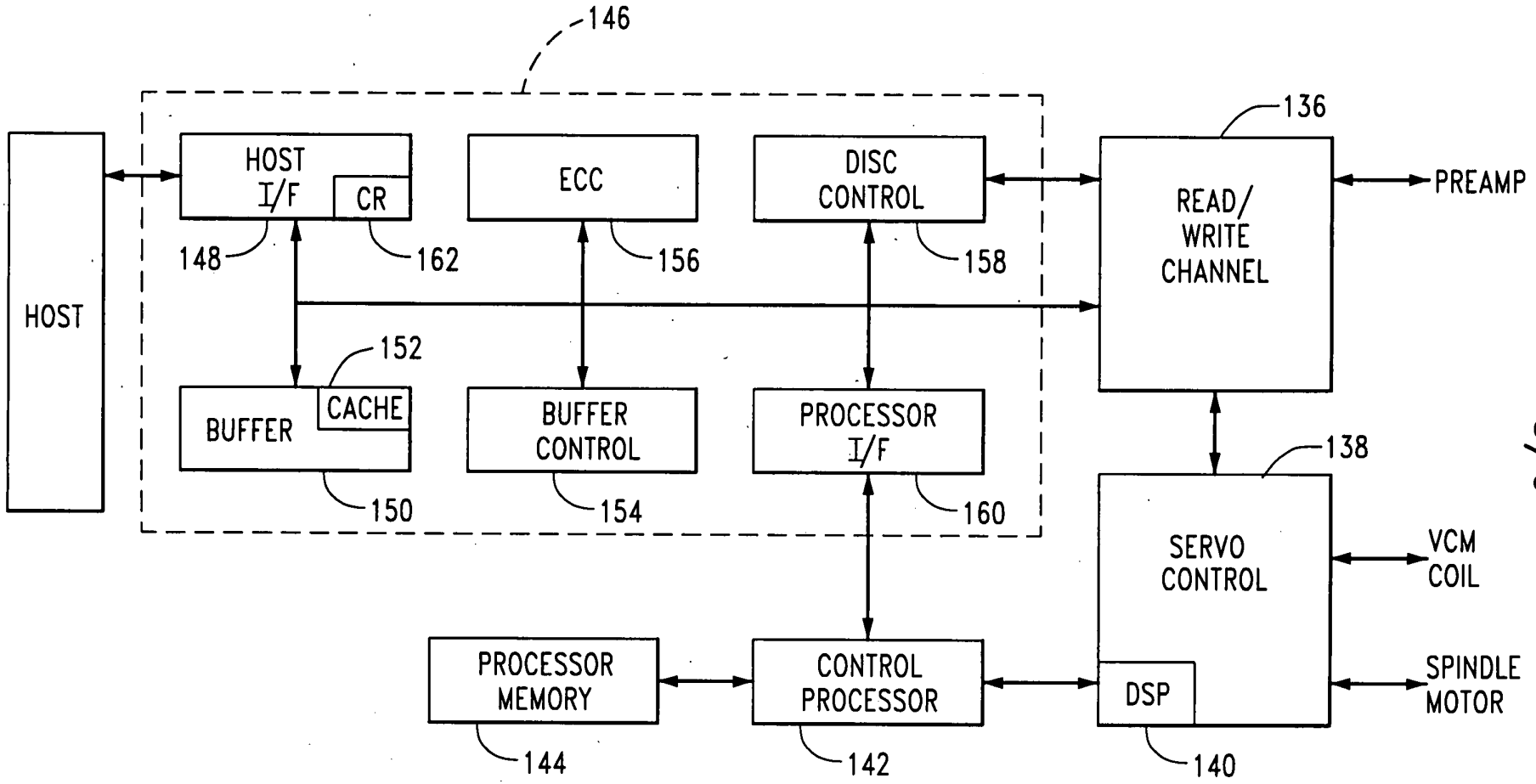
146
HOST
HOST I/F
CR
148
162
ECC
156
DISC CONTROL
158
136
READ/ WRITE CHANNEL
PREAMP
152
BUFFER
CACHE
150
BUFFER CONTROL
154
PROCESSOR I/F
160
138
SERVO CONTROL
VCM COIL
SPINDLE MOTOR
DSP
140
PROCESSOR MEMORY
144
CONTROL PROCESSOR
142

FIG. 4

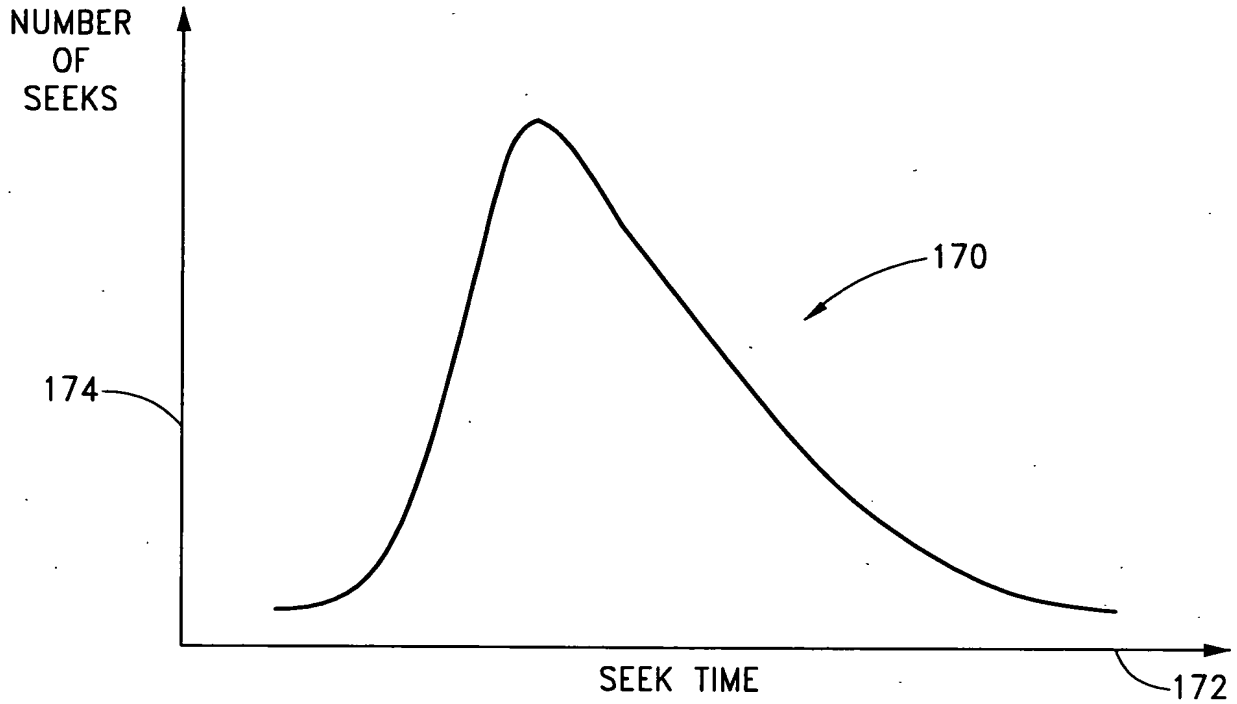
NUMBER
OF
SEEKS
170
174
SEEK TIME
172

FIG. 6

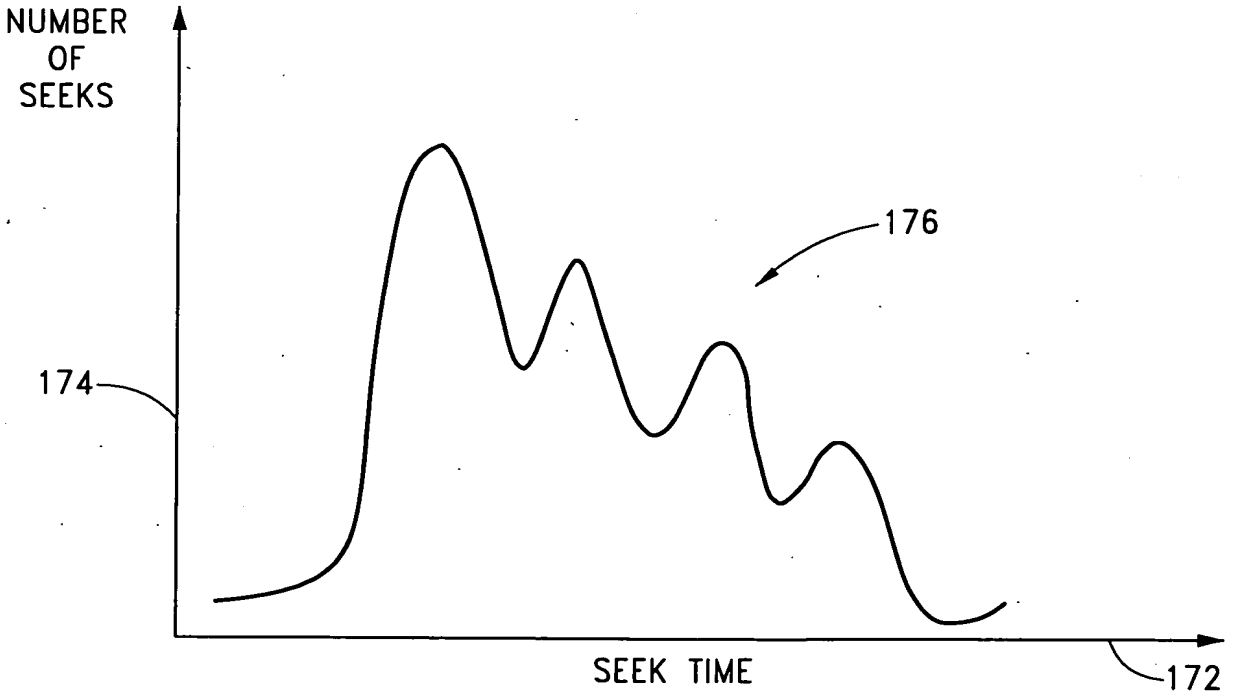
NUMBER
OF
SEEKS
176
174
SEEK TIME
172

FIG. 7

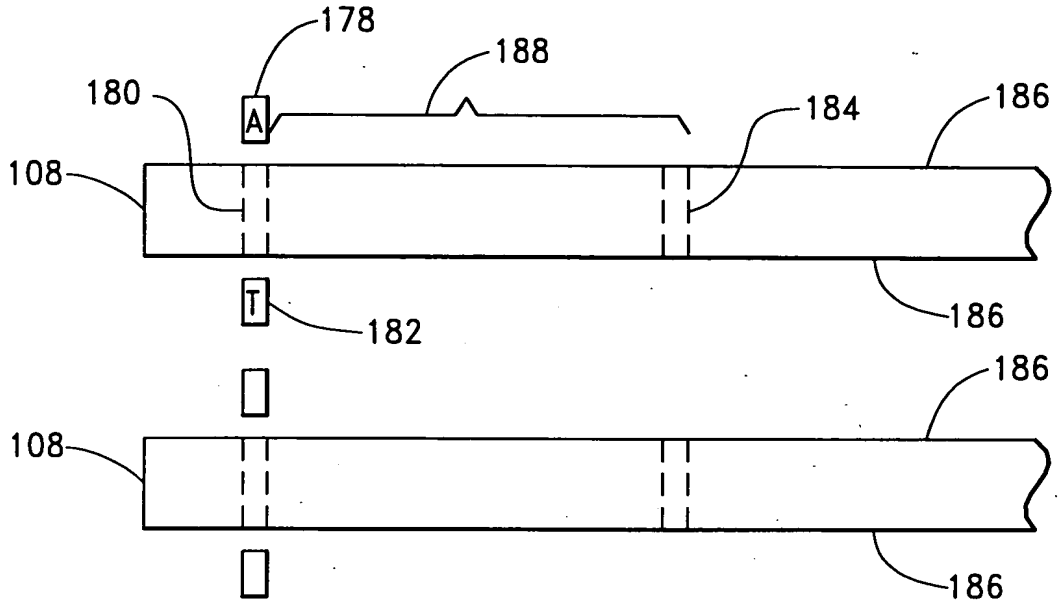
178
188
180
A
184
186
108
T
182
186
186
108
186

FIG. 8

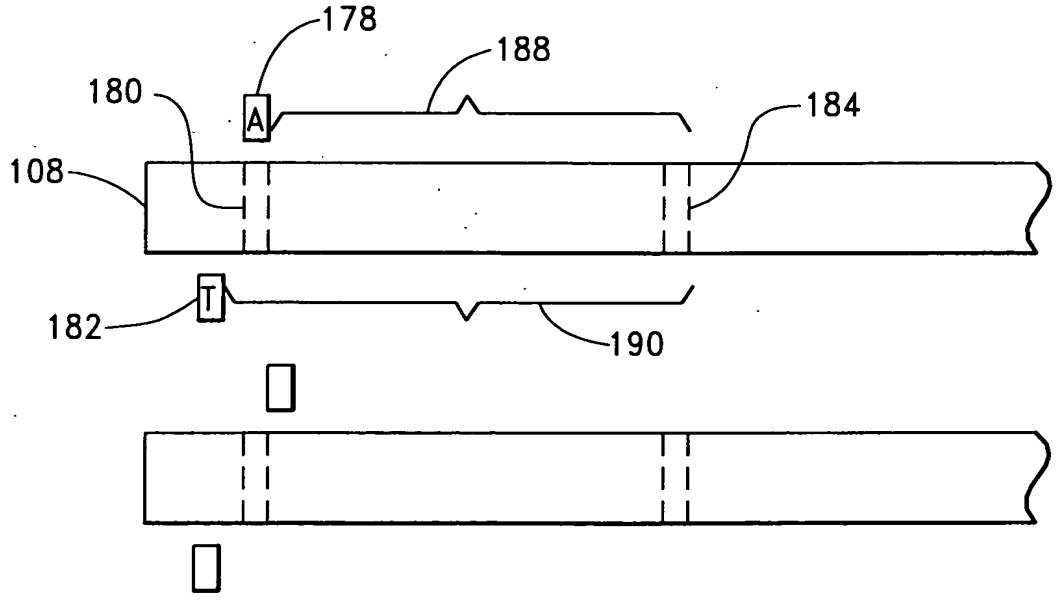
178
188
180
A
184
108
T
182
190

FIG. 9

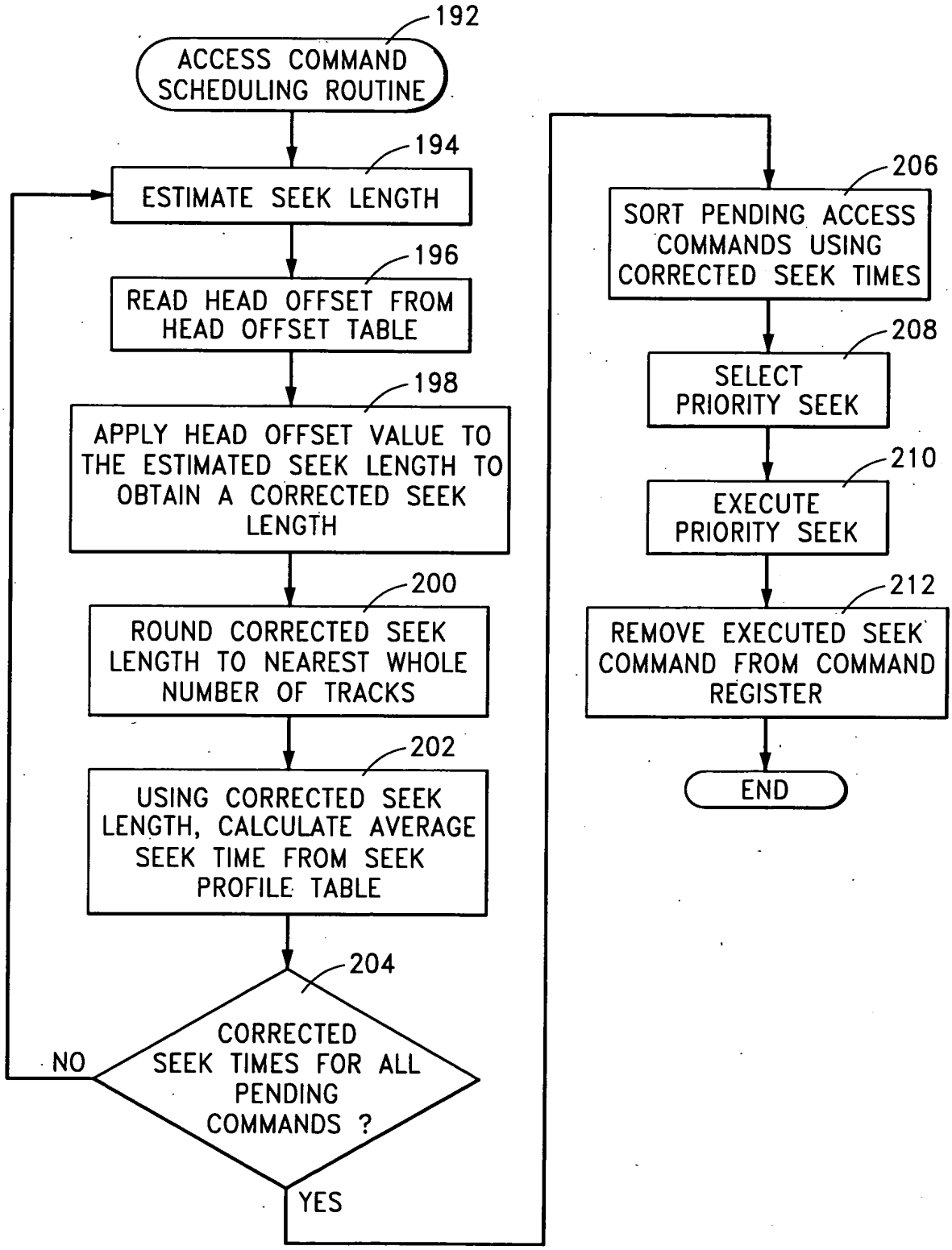
192
ACCESS COMMAND SCHEDULING ROUTINE
194
ESTIMATE SEEK LENGTH
196
READ HEAD OFFSET FROM HEAD OFFSET TABLE
198
APPLY HEAD OFFSET VALUE TO THE ESTIMATED SEEK LENGTH TO OBTAIN A CORRECTED SEEK LENGTH
200
ROUND CORRECTED SEEK LENGTH TO NEAREST WHOLE NUMBER OF TRACKS
202
USING CORRECTED SEEK LENGTH, CALCULATE AVERAGE SEEK TIME FROM SEEK PROFILE TABLE
204
CORRECTED SEEK TIMES FOR ALL PENDING COMMANDS ?
NO
YES
206
SORT PENDING ACCESS COMMANDS USING CORRECTED SEEK TIMES
208
SELECT PRIORITY SEEK
210
EXECUTE PRIORITY SEEK
212
REMOVE EXECUTED SEEK COMMAND FROM COMMAND REGISTER
END

FIG. 10